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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,056	02/06/2004	Gerold Balling	BALLING	4816
20151	7590	01/04/2005	EXAMINER	
HENRY M FEIEREISEN, LLC 350 FIFTH AVENUE SUITE 4714 NEW YORK, NY 10118			SHECHTMAN, SEAN P	
			ART UNIT	PAPER NUMBER
			2125	

DATE MAILED: 01/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/774,056	<b>Applicant(s)</b> BALLING, GEROLD	
	<b>Examiner</b> Sean P. Shechtman	<b>Art Unit</b> 2125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>5/10/04</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. Claims 1-9 are presented for examination.

#### ***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### ***Drawings***

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the bus system comprising a secure wireless connection must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any

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required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

4. The use of the trademarks UltraThinClient and Siemens have been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Referring to claim 1, lines 1-2, it is not clear if the device is for controlling one or plural machine tools or production machines. Referring to claim 1, it is not clear what includes the control functions, the machine tools or production machines or a computer.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1 and 5-8 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 3,668,653 to Fair.

Referring to claim 1, Fair teaches a device for *at least one of* automating and controlling a machine tools or production machines (Col. 1, lines 45-51), comprising:

at least one computer located remote from *at least one of* the machine tools or production machines and including control functions for controlling the machine tools or production machines (Col. 5, lines 4-18); and

at least one bus system connecting the computer with each machine tools or production machine and adapted to transmit data and control signals unidirectionally or bidirectionally (Col. 5, lines 41-62), wherein said remote computer is configured as a manual control device (Fig. 1, element 72 or 70; Col. 5, lines 28-40).

Referring to claim 5, Fair teaches the device of claim 1, wherein the computer is selected from the group consisting of personal computer and workstation (Col. 5, lines 19-26).

Referring to claim 6, Fair teaches the device of claim 1, wherein the at least one computer processes the control functions of several machine tools or processing machines in parallel (Col. 18, lines 16-48).

Referring to claim 7, Fair teaches the device of claim 1, and further comprising a plurality of said at least one computer, with the control functions being processed on at least two of the plurality of computers (Fig. 1).

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Referring to claim 8, Fair teaches the device of claim 1, wherein the machine is provided with an UltraThinClient that lacks built-in intelligence (Col. 5, line 62 - Col. 6, lines 1-14).

7. Claims 1, 5, and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 4,369,563 to Williamson.

Referring to claims 1 and 5, Williamson teaches a device for *at least one of* automating and controlling a machine tools or production machines (Abstract), comprising:

at least one computer located remote from *at least one of* the machine tools or production machines and including control functions for controlling the machine tools or production machines (Col. 13, lines 21-47; Col. 18, lines 36-42); and

at least one bus system connecting the computer with each machine tools or production machine and adapted to transmit data and control signals unidirectionally or bidirectionally (Col. 18, lines 36-60), wherein said remote computer is configured as a manual control device (Col. 20, lines 24-38).

Referring to claim 7, Williamson teaches the device of claim 1, and further comprising a plurality of said at least one computer, with the control functions being processed on at least two of the plurality of computers (Col. 18, lines 36-42).

Referring to claim 8, Williamson teaches the device of claim 1, wherein the machine is provided with an UltraThinClient that lacks built-in intelligence (Col. 56, lines 6-29; Col. 21, lines 1-11).

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Referring to claim 9, Williamson teaches the device of claim 1, and further comprising a central electric supply unit that supplies energy to the machines (Col. 20, lines 4-13).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 4,369,563 to Williamson as applied to claims 1, 5, and 7-9 above, and further in view of U.S. Pat. No. 5,621,672 to Kobayashi.

Referring to claim 6, Williamson teaches all of the limitations set forth above, however fails to teach that the at least one computer processes the control functions of several machine tools or processing machines in parallel.

However, referring to claim 6, Kobayashi teaches analogous art, wherein at least one computer processes control functions of several machine tools or processing machines in parallel (Abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the teachings of Williamson with the teachings of Kobayashi. One of ordinary skill in the art would have been motivated to combine these references because Kobayashi teaches a multitask control system for controlling operations of a plurality of machine tools or processing machines (Col. 1, lines 8-16), thus enabling control of operations requiring real-time control in their nature

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and allowing a user of the system to generate the software easily without lowering reliability and performance of the software, thereby preventing an increase in manpower to develop and revise the software (Col. 2, lines 1-12).

9. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 4,369,563 to Williamson as applied to claims 1, 5, and 7-9 above, and further in view of U.S. Pat. No. 5,561,770 to de Bruijn. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 3,668,653 to Fair as applied to claims 1 and 5-8 above, and further in view of U.S. Pat. 5,561,770 to de Bruijn.

Referring to claim 6, Williamson and Fair teaches all of the limitations set forth above, however fails to teach the bus system is configured as a redundant and secure bus system.

However, referring to claim 2, de Bruijn teaches analogous art (Col. 1, lines 17-27), wherein the bus system is configured as a redundant and secure bus system (Abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the teachings of Williamson or Fair with the teachings of de Bruijn. One of ordinary skill in the art would have been motivated to combine these references because de Bruijn teaches a secure communication system which enables an actively redundant process control computer to receive a revised operating program without adversely affecting the operation of another actively redundant process control computer (Col. 2, lines 38-64). Furthermore, de Bruijn teaches a communications system capable of utilizing a plurality of different communication



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protocols and encryptions techniques depending on the type of message being transmitted (Col. 2, lines 59-64).

10. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 4,369,563 to Williamson as applied to claims 1, 5, and 7-9 above, and further in view of U.S. Pat. No. 4,294,682 to Deczky. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 3,668,653 to Fair as applied to claims 1 and 5-8 above, and further in view of U.S. Pat. 4,294,682 to Deczky.

Referring to claim 4, Williamson and Fair teaches all of the limitations set forth above, however fail to teach the bus system comprises a secure wireless connection.

However, referring to claim 4, Deczky teaches analogous art, wherein the bus system comprises a secure wireless connection (Abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the teachings of Williamson or Fair with the teachings of Deczky. One of ordinary skill in the art would have been motivated to combine these references because Deczky teaches a computer transmits control instructions to operators via a highly efficient optical link, thereby avoiding a great deal of electrical interference (Abstract; Col. 2, lines 8-25). This also eliminates the problems concerning a multiplicity of lengthy cables (Col. 2, lines 64-65).

11. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 4,369,563 to Williamson as applied to claims 1, 5, and 7-9 above, and further in view of The Microsoft Computer Dictionary. Claim 3 is rejected under 35 U.S.C. 103(a) as

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being unpatentable over U.S. Pat. No. 3,668,653 to Fair as applied to claims 1 and 5-8 above, and further in view of The Microsoft Computer Dictionary.

Referring to claim 3, Williamson and Fair teaches all of the limitations set forth above, however fail to teach the bus system is implemented at an Ethernet bus system.

However, referring to claim 3, The Microsoft Computer Dictionary teaches analogous art, wherein a bus system is implemented at an Ethernet bus system.

Therefore, it would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the teachings of Williamson or Fair with the teachings of The Microsoft Computer Dictionary. One of ordinary skill in the art would have been motivated to combine these references because The Microsoft Computer Dictionary teaches the Ethernet is a widely used local area network system developed by Xerox in 1976 from which the IEEE 802.3 standard was developed, wherein this Ethernet standard provides for baseband transmission at 10 megabits per second and is available in various forms. Furthermore, The Microsoft Computer Dictionary teaches the Ethernet bus or star topology allows data to be transmitted in variable-length frames containing delivery and control information and up to 15,000 bytes of data.

### ***Conclusion***

12. The prior art or art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents or publications are cited to further show the state of the art with respect to an ultra thin client.

U.S. Pat. No. 6,216,157 to Vishwanath.

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13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean P. Shechtman whose telephone number is (571) 272-3754. The examiner can normally be reached on 9:30am-6:00pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P. Picard can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SPS

Sean P. Shechtman

December 22, 2004

 72-27-04  
**ALBERT W. PALADINI**  
**PRIMARY EXAMINER**